

Anthrax:

Fact vs. Myth

information compiled from the DefenseLink website

MYTH: There is no defense against anthrax.
FACT: Vaccination is the best defense against biological warfare involving anthrax. Nuclear, Biological and Chemical (NBC) gear and protective masks should also be used as added measures to reduce exposure.

MYTH: Antibiotics are just as effective against anthrax as the vaccine.
FACT: Antibiotics can be effective in cases of cutaneous anthrax, which means it was contracted through the skin. However, antibiotics have not been proven effective against the more deadly forms of anthrax: inhaled and ingested.

MYTH: The anthrax vaccine can cause me to catch anthrax. It works by actually injecting live cells into my body to build immunity.
FACT: The anthrax vaccine does not use live bacteria. It is a sterile product made from a strain of anthrax that does not cause disease.

MYTH: Anthrax spores can be destroyed by common disinfectants.
FACT: Spores can only be destroyed by steam sterilization or burning.

MYTH: Nobody can survive in an anthrax contaminated area.
FACT: People who have been vaccinated for anthrax can survive in an anthrax contaminated area. Protective masks and NBC suits can also provide protection against contamination.

MYTH: Service members will have ample warning of an anthrax attack due to effective detection devices.
FACT: Interim systems of detecting biological agents are just now being fielded in limited numbers. Until reliable detectors are available in sufficient numbers, usually the first indication of a biological attack in unprotected soldiers will be the ill soldier. Even with detection systems, medical protection (vaccines), intelligence, and physical protection will be required to provide layered primary defenses against a biological attack.

MYTH: Anthrax must be hand-delivered; it cannot survive any other means of deployment.
FACT: Anthrax bacteria can be deployed by missiles and artillery shells, thereby allowing the enemy a greater distance from which to attack.

MYTH: Anthrax can be transmitted from person to person.
FACT: There is no evidence of person-to-person transmission of anthrax. Quarantine of affected individuals is not recommended.

MYTH: One injection of the anthrax vaccine will protect you for life.
FACT: As with other vaccines, annual booster shots are required to maintain immunity after the initial six-shot series.

MYTH: The anthrax vaccine will protect me against all biological agents.
FACT: The vaccine will protect you against all known strains of anthrax. It will not protect you against other biological agents.

MYTH: The anthrax vaccine is experimental and under investigation.
FACT: The anthrax vaccine is not experimental or investigational. It has been used safely to protect at-risk industrial and laboratory workers for almost 30 years.

MYTH: The reliability of the anthrax vaccine is based on only one human efficacy group — wool mill workers.
FACT: Clinical studies with approximately 1,200 wool mill workers have demonstrated protection against cutaneous anthrax. Since conducting lethal challenge studies in humans is considered unethical, determining the actual efficacy of the vaccine is not possible. However, there have been numerous tests of the anthrax vaccine involving animal models (i.e., Rhesus monkey model) upon which the FDA determined its safety and efficacy.

MYTH: The anthrax vaccine may cause sterility.
FACT: The vaccination has been routinely used for the past 28 years and has not been associated with sterility. Although we cannot conduct experiments with lethal agents on the human reproductive system (for ethical reasons), there is ample evidence that it does not cause any harm or sterility.

MYTH: It is safe for pregnant women to receive the anthrax vaccine.
FACT: Anthrax vaccine, like other vaccines in the U.S., is classified as "Pregnancy Category C," which means that animal reproduction studies have not been conducted with anthrax vaccine. Therefore, prudent medical practice dictates that all vaccinations, including anthrax, should be routinely deferred during pregnancy unless clearly needed.

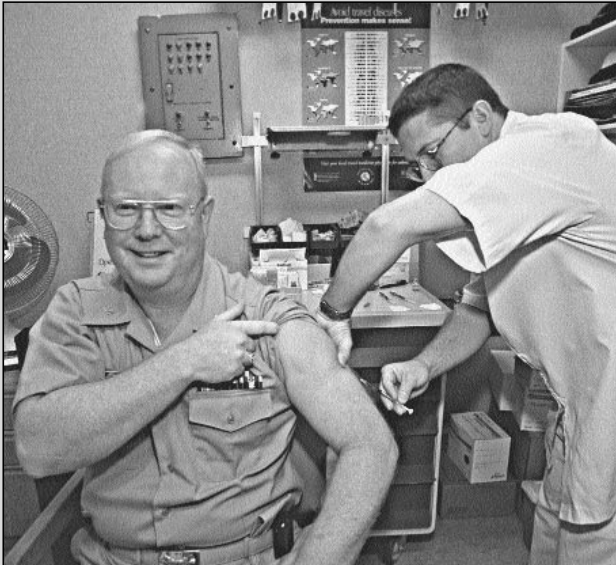
MYTH: Anthrax kills only farm animals.
FACT: Anthrax kills both animals and humans.

MYTH: Anthrax is a new, manufactured disease.
FACT: Anthrax dates back to 1500 B.C., first recorded by the Egyptians as the cause of the fifth Egyptian plague.

MYTH: Anthrax vaccine caused Gulf War Illnesses.
FACT: For the simple reason that it has been routinely used for 28 years with no resulting symptoms indicative of Gulf War Illnesses, the anthrax vaccine cannot be responsible for the illness.

MYTH: The Michigan Biologic Products Institute (MBPI) was shut down as a result of an FDA inspection in November 1996.
FACT: Production stopped when the production contract expired. This was timed to accommodate the planned renovation of the anthrax vaccine stockpile as part of the Department of Defense's acquisition strategy. The renovation will assure that MBPI (now Bioport Corporation) remains in compliance with stringent federal manufacturing practices.

MYTH: The FDA report of MBPI caused the Department of Defense's decision to conduct additional testing on the anthrax vaccine stockpile.
FACT: Conducting additional testing on the anthrax vaccine stockpile was a self-directed Department of Defense action and was not based on any report from the FDA.



J02 Greg Cleghorne photo

Capt. H. James Beecham III, officer in charge of NEPMU-6, seen here receiving the anthrax vaccine at the Naval Medical Clinic, Makalapa. "If we were to come up against an enemy who might launch a biological attack against us, this vaccine would be no less than life-saving."

Anthrax: 'Better safe than sorry'

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than go into an area unprotected.

MMAR team members are available for rapid deployment anywhere in the world where biological warfare agent could be used against servicemembers or civilians. NEPMU-6 members are also called upon to assist members of the Center for Disease Control (CDC) when the need arises.

U.S. military members around the world are always possible targets for attack by a known or an unknown enemy.

"Being a target is one good reason for the "total force" anthrax vaccine inoculation program," Bascon concluded.

"Much of the controversy about the inoculation comes out of misinformation," said Cmdr. Jeff Yund, NEPMU-6 epidemiology department head.

"It's a FDA [Food and Drug Administration] approved vaccine that's been around since the early seventies," Yund continued. "Thousands have been vaccinated with the entire six-dose series [and boosters] already. It's a safe vaccine."

"There are a number of countries that have anthrax spores loaded in projectile weapons that could be launched at any time," Yund said.

It's not news that Saddam Hussein unleashed his arsenal of nerve agents against Kurdish peoples in Iraq.

His actions gave rise to the need for United Nations inspectors, UN sanctions and the continuing NATO operations over Iraq.

"Once a person develops symptoms of the [anthrax] infection, a high percent of those infected die," Yund said.

"We believe the vaccine works. We know what antibody response looks like - the body's ability to form particular cells to combat anthrax infection - and we know the vaccine is protective.

This vaccine causes the proper antibody response to anthrax.

"We are confident that this vaccine will be

effective in protecting our Sailors against multiple lethal doses of anthrax."

Some of the controversy about the vaccine is that servicemembers believe they would be injected with live anthrax, similar to other immunizations that follow that procedure. Yund says although that's a common practice with some vaccines, it's not so with this one.

"This vaccine is avirulent," Yund explained. "It does not cause anthrax and is not made from any live strains of anthrax.

The protective antigens are grown in a culture producing a protein [used in the vaccine]. There are no dead or crushed anthrax bacilli [in this vaccine].

"We do testing for biological warfare (BW) agents," reported HMC (SW) Richard Gotautas, NEPMU-6 microbiology team.

"If there's a chance an active anthrax specimen is introduced into our building, we'd have to do testing on it.

If that were ever the case we'd like to have that [anthrax vaccination] protection for all of our personnel.

"I'll be deploying soon to a high-risk area and I'm glad I'm getting the vaccination. I really have no worries about getting the vaccination series.

I just want to get it over with so I can concentrate on doing my job."

"I've seen what happens to animals hit with inhalation anthrax and it isn't pretty," said Capt. H. James Beecham III, NEPMU-6's officer-in-charge, an infectious disease specialist.

"If we were to come up against an enemy who might launch a biological attack against us, this vaccine would be no less than life-saving."

There was a time when the only test for a biological agent used on a battlefield was nothing more than a hapless bird in a cage outside a soldier's tent or trench.

Today, with the help of some high technology, the DoD is taking this idea one step higher by vaccinating servicemembers against a colorless, odorless, potentially deadly enemy.

Get the facts!

To learn more about anthrax, check out these websites:

DoD Anthrax Website
www.defenselink.mil/specials/anthrax

Navy's Anthrax Website
www.nehc.med.navy.mil/prevmmed/immun/anthrax.htm

Pacific Fleet's Anthrax Website
www.cpf.navy.mil/anthrax